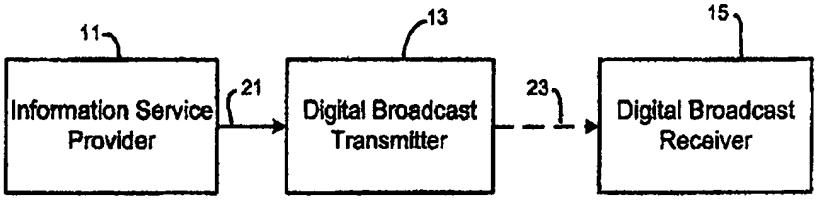


Fig. 1
(Prior Art)

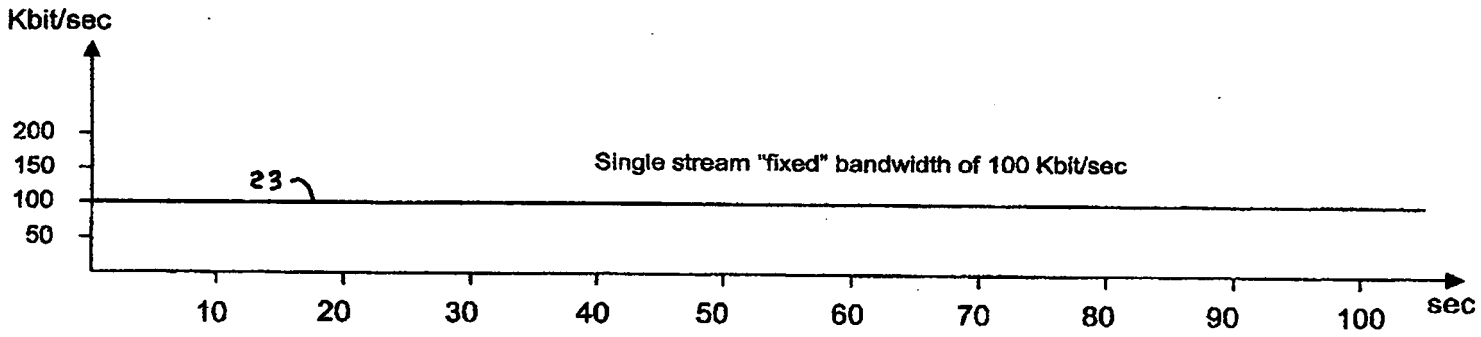


Fig. 2
(Prior Art)

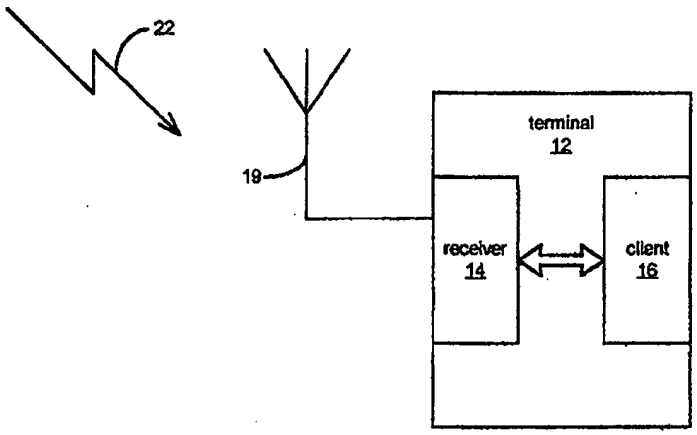


Fig. 3

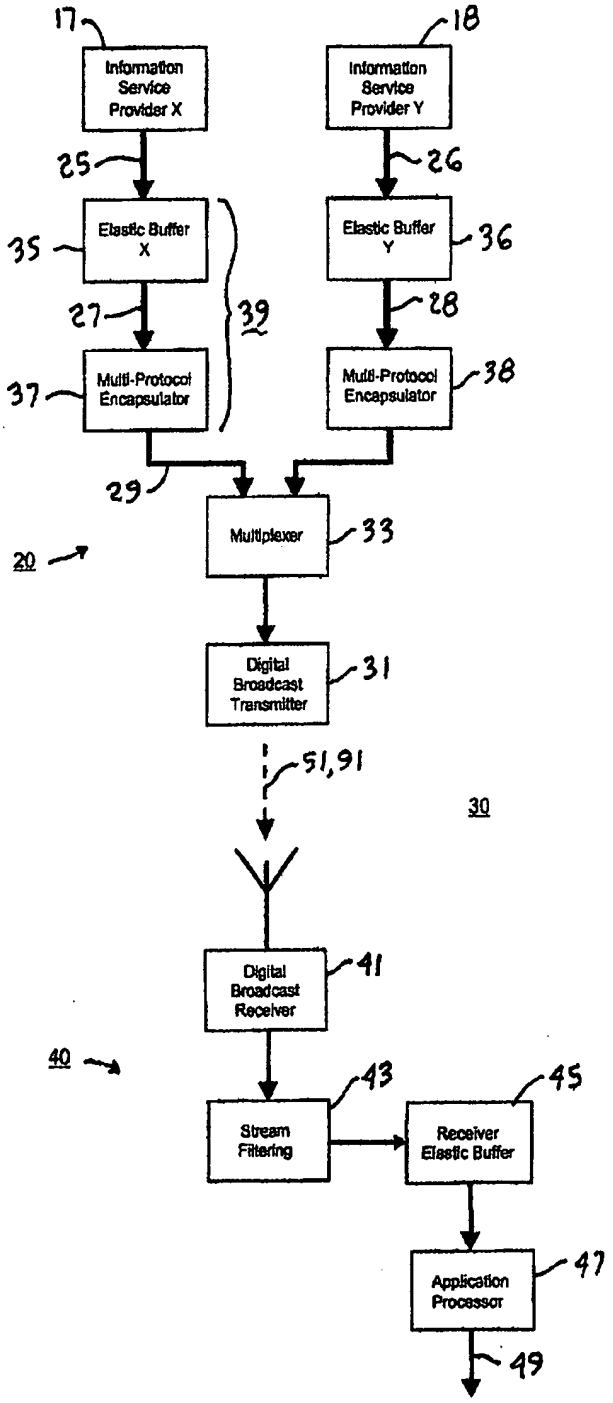

17
Information Service Provider X
18
Information Service Provider Y
25
26
Elastic Buffer X
35
Elastic Buffer Y
36
27
28
39
Multi-Protocol Encapsulator
37
Multi-Protocol Encapsulator
38
29
Multiplexer
33
20
Digital Broadcast Transmitter
31
51,91
30
Digital Broadcast Receiver
41
40
43
45
Stream Filtering
Receiver Elastic Buffer
Application Processor
47
49

Fig. 4

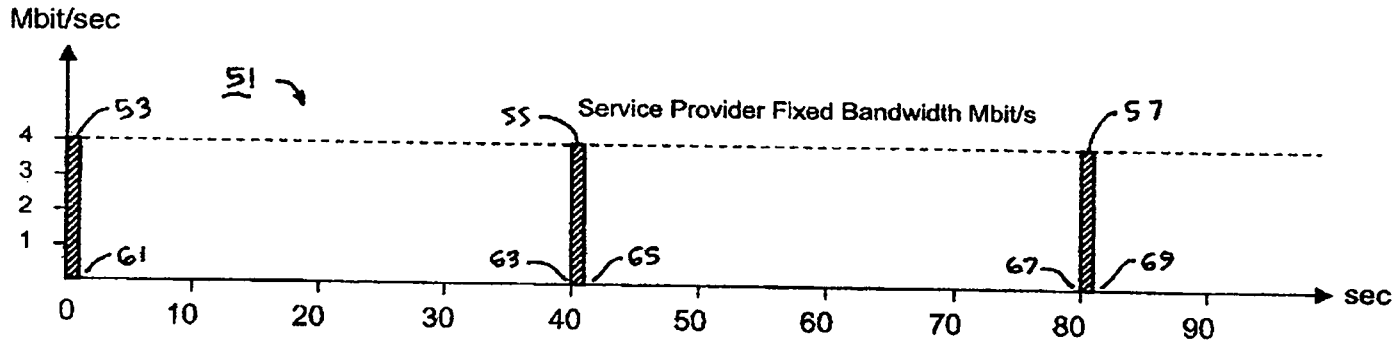

Mbit/sec
51
53
55
Service Provider Fixed Bandwidth Mbit/s
57
4
3
2
1
61
63
65
67
69
0
10
20
30
40
50
60
70
80
90
sec

Fig. 6

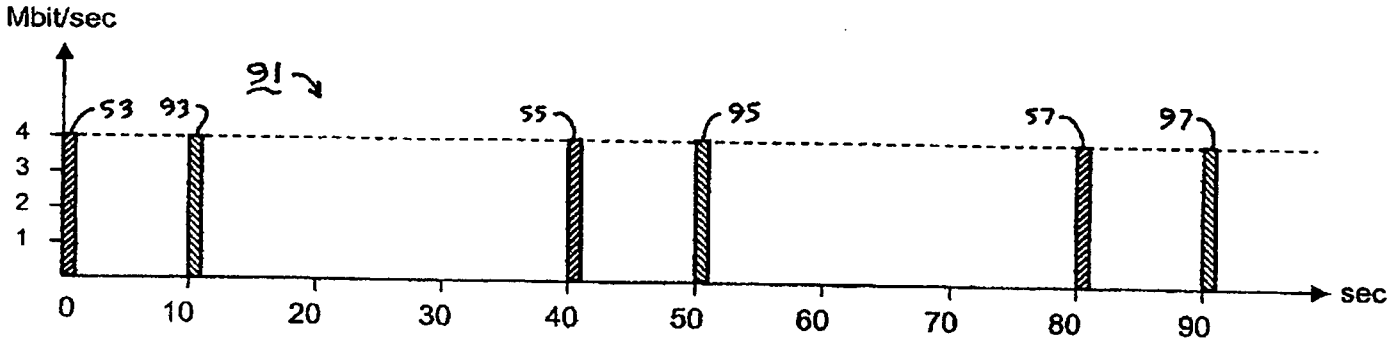
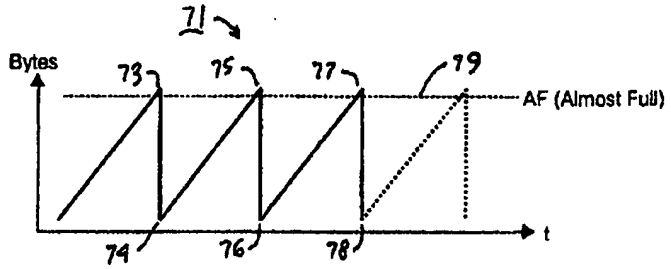
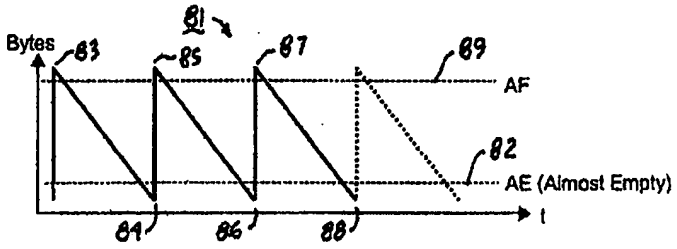

Mbit/sec
91
53
93
55
95
57
97
4
3
2
1
0
10
20
30
40
50
60
70
80
90
sec

Fig. 12



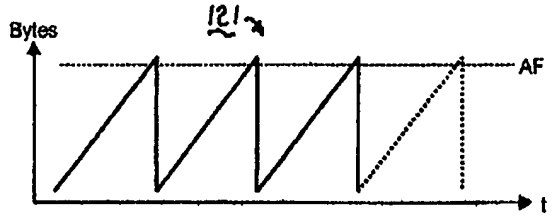
Elastic Buffer X Data Characteristics

Fig. 5



Receiver Elastic Buffer Data Characteristics

Fig. 11



Elastic Buffers A-D Data Characteristics

Fig. 14

Syntax	No. of bits
Data_broadcast_descriptor () {	
Descriptor_tag	8
Descriptor_length	8
Data_broadcast_id 80	16
Component_tag	8
Selector_length	8
For (I=0; I<selector_length, I++) {	
Selector_byte	8
}	
ISO_639_language_code	24
Text_length	8
For (I=0, I<text_length, i++) {	
Text_char	8
}	
}	

Fig. 7

Syntax		No. of bits
Datagram_section() {		
Table_id		8
Section_syntax_indicator		1
Private_indicator		1
Reserved		2
Section_length		12
MAC_address_6	90-6	8
MAC_address_5	90-5	8
Reserved		2
Payload_scrambling_control		2
Address_scrambling_control		2
LLC_SNAP_flag		1
Current_next_indicator		1
Section_number		8
Last_section_number		8
MAC_address_4	90-4	8
MAC_address_3	90-3	8
MAC_address_2	90-2	8
MAC_address_1	90-1	8
If (LLC_SNAP_flag == '1') {		
LLC_SNAP()		
} else {		
for (j=0;j<N1;j++){		
IP_datagram_data_byte		8
}		
}		
If (section_number == last_section_number) {		
For (j=0;j<N2;j++) {		
Stuffing_byte		8
}		
}		
If (section_syntax_indicator=='0'){		
Checksum		32
} else {		
CRC_32		32
}		
}		

Fig. 8

Syntax		No. of bits
Multiprotocol_encapsulation_info () {		
MAC_address_range	92	3
MAC_IP_mapping_flag	94	1
Alignment_indicator		1
Reserved	96	3
Max_section_per_datagram		8
}		

Fig. 9

MAC_address_range	Valid MAC_address bytes
0x00	Reserved
0x01	6
0x02	6, 5
0x03	6, 5, 4
0x04	6, 5, 4, 3
0x05	6, 5, 4, 3, 2
0x06	6, 5, 4, 3, 2, 1
0x07	Reserved

Fig. 10

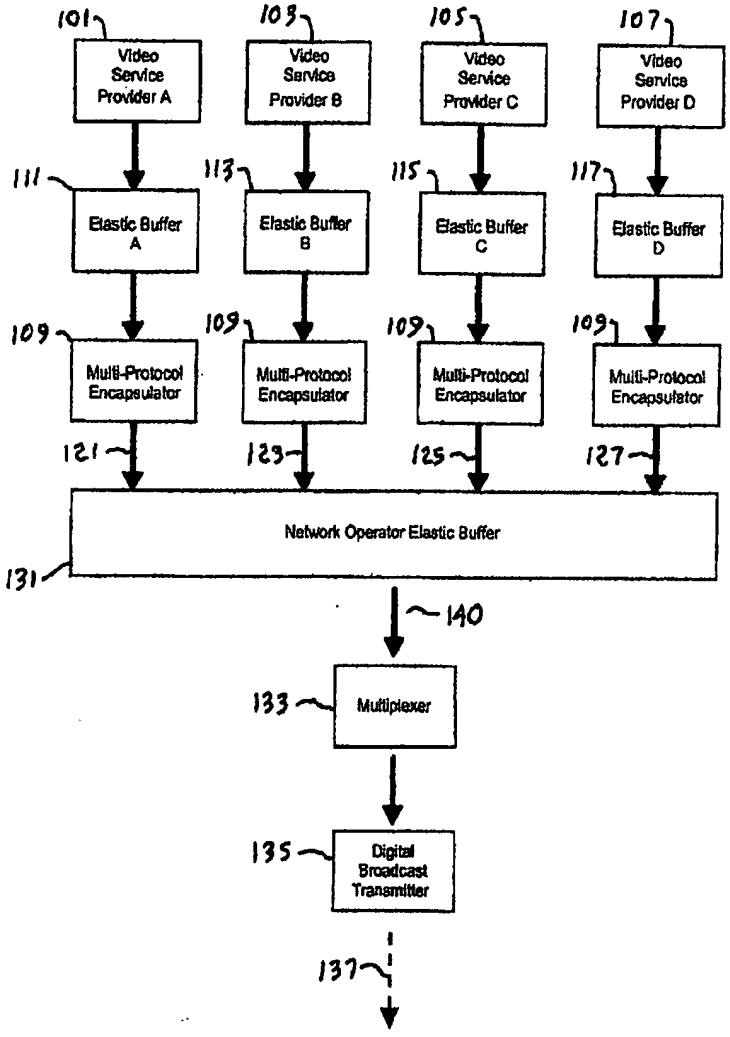
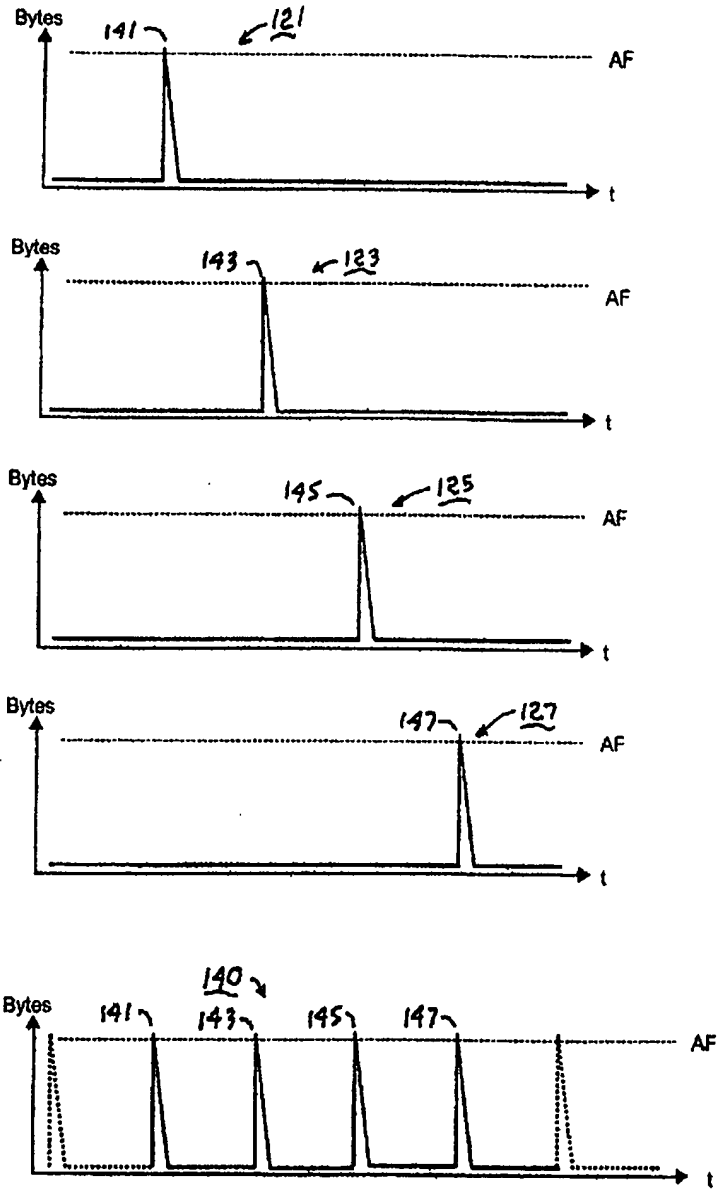

101
Video Service Provider A
103
Video Service Provider B
105
Video Service Provider C
107
Video Service Provider D
111
Elastic Buffer A
113
Elastic Buffer B
115
Elastic Buffer C
117
Elastic Buffer D
109
Multi-Protocol Encapsulator
109
Multi-Protocol Encapsulator
109
Multi-Protocol Encapsulator
109
Multi-Protocol Encapsulator
121
123
125
127
Network Operator Elastic Buffer
131
140
133
Multiplexer
135
Digital Broadcast Transmitter
137
100

Fig. 13



Network Operator Elastic Buffer (FIFO-type) Data Characteristics

Fig. 15

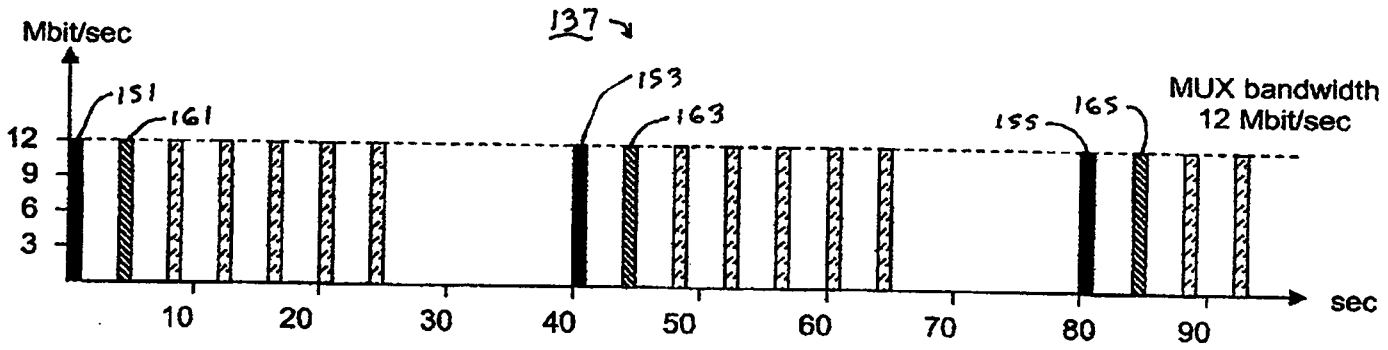


Fig. 16

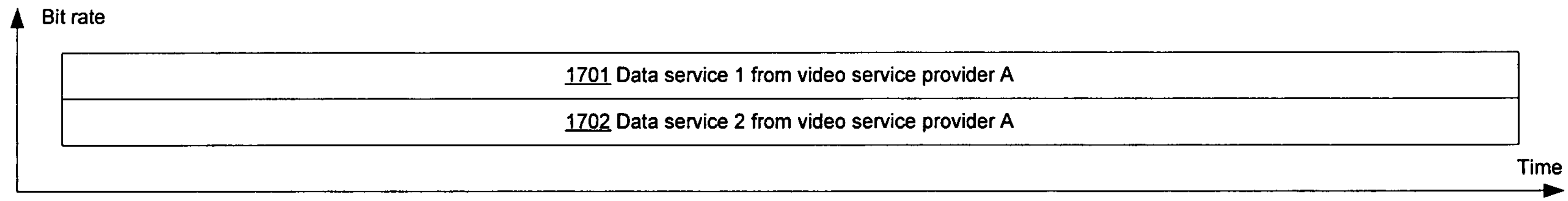


Fig. 17

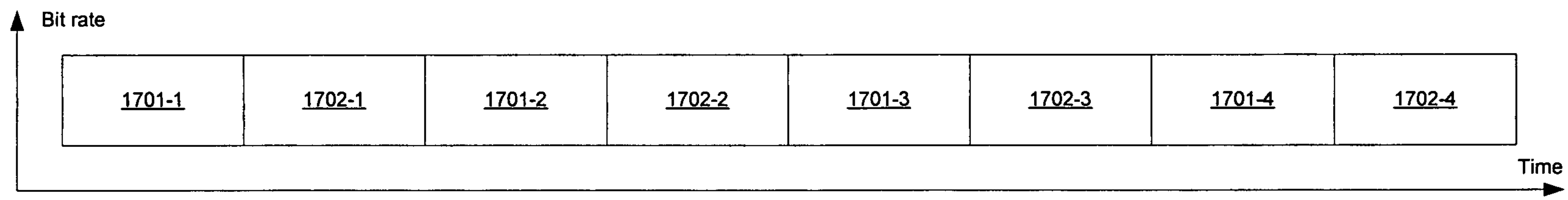


Fig. 18

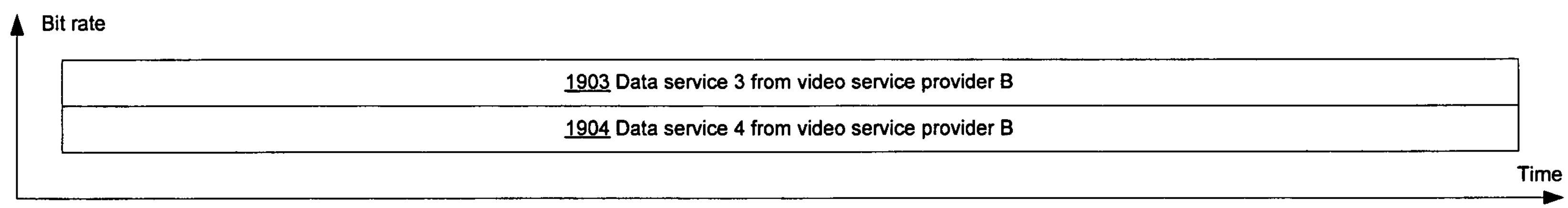


Fig. 19

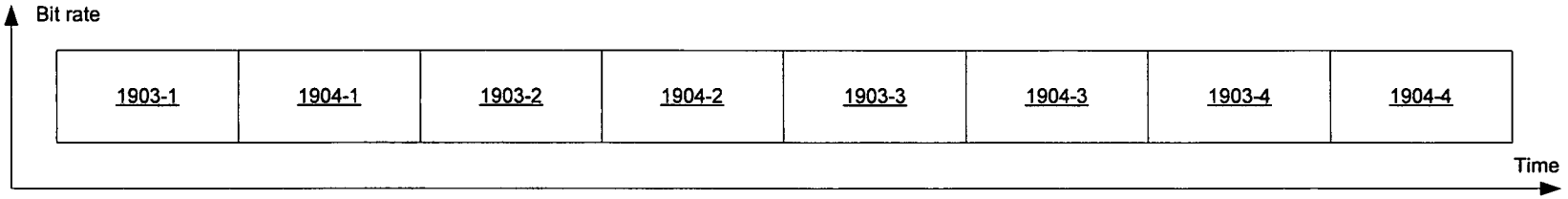

Bit rate
1903-1
1904-1
1903-2
1904-2
1903-3
1904-3
1903-4
1904-4
Time

Fig. 20

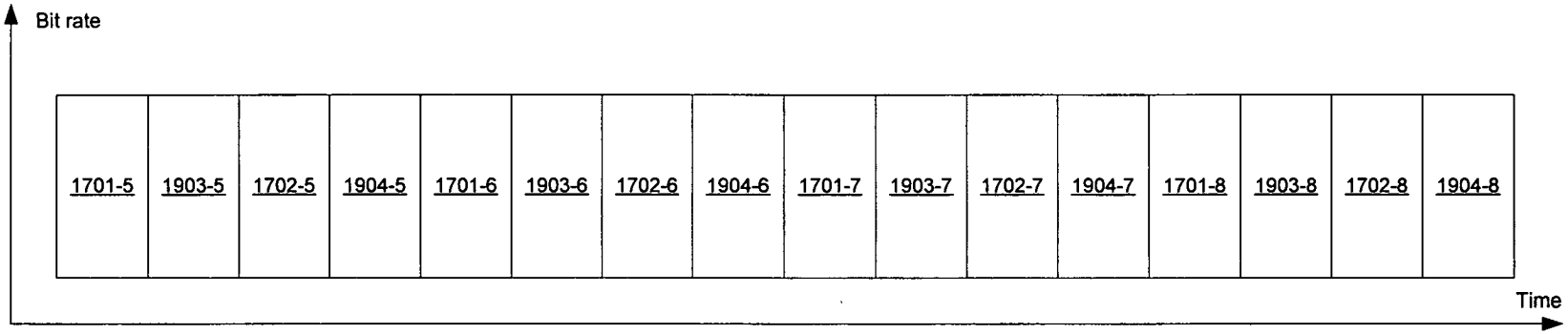

Bit rate
1701-5
1903-5
1702-5
1904-5
1701-6
1903-6
1702-6
1904-6
1701-7
1903-7
1702-7
1904-7
1701-8
1903-8
1702-8
1904-8
Time

Fig. 21

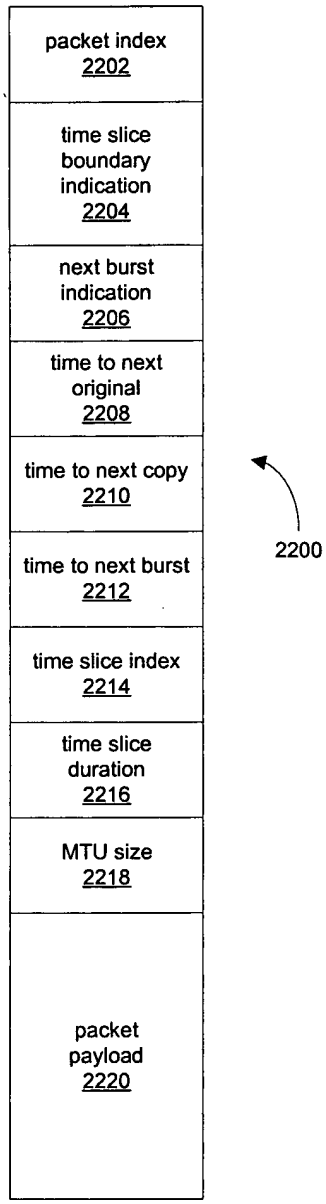


Fig. 22

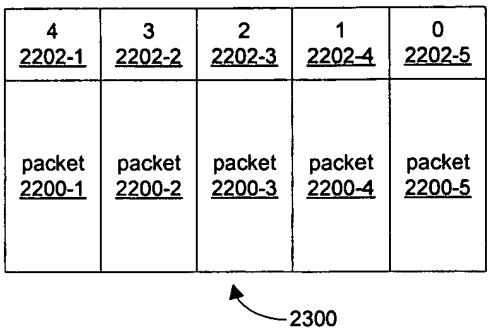


Fig. 23

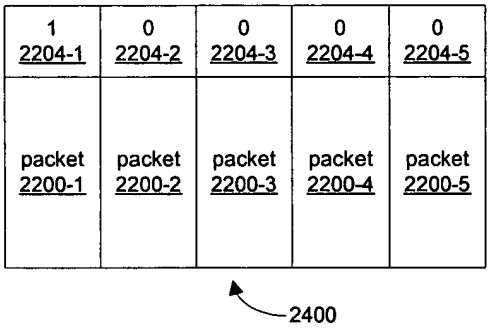


Fig. 24

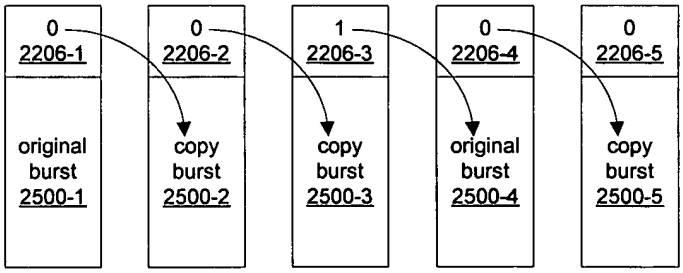


Fig. 25

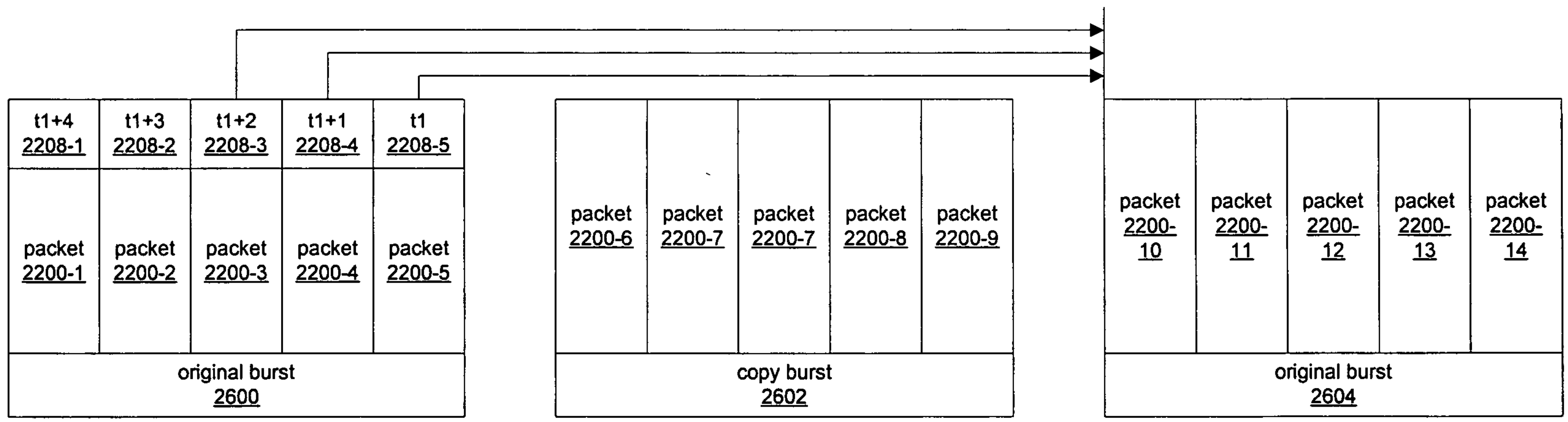

t1+4
2208-1
t1+3
2208-2
t1+2
2208-3
t1+1
2208-4
t1
2208-5
packet
2200-1
packet
2200-2
packet
2200-3
packet
2200-4
packet
2200-5
original burst
2600
packet
2200-6
packet
2200-7
packet
2200-7
packet
2200-8
packet
2200-9
copy burst
2602
packet
2200-10
packet
2200-11
packet
2200-12
packet
2200-13
packet
2200-14
original burst
2604

Fig. 26

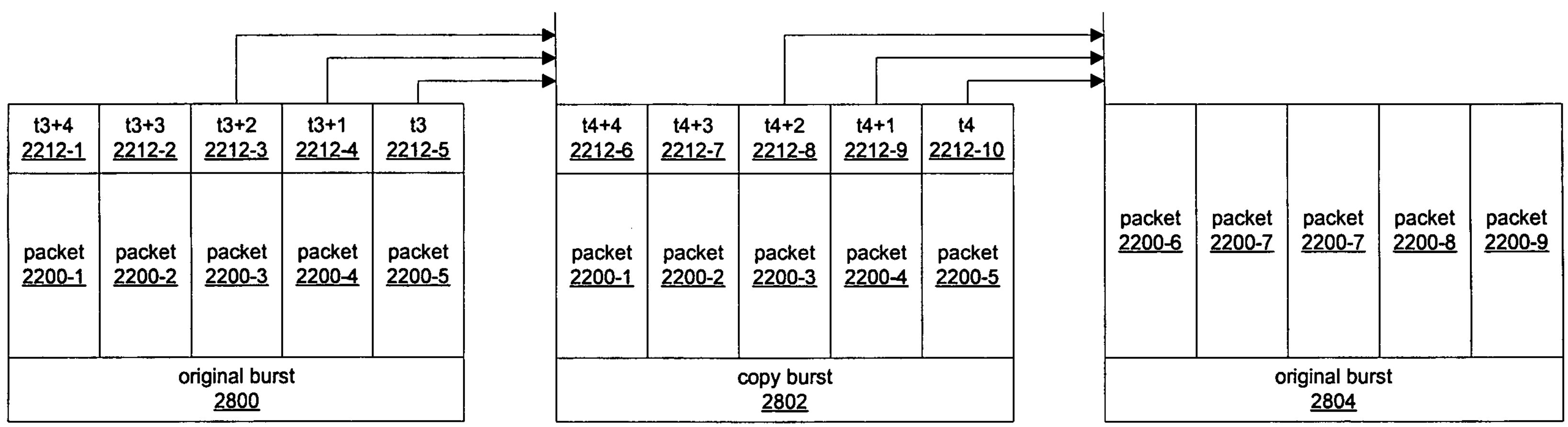

t3+4
2212-1
t3+3
2212-2
t3+2
2212-3
t3+1
2212-4
t3
2212-5
packet
2200-1
packet
2200-2
packet
2200-3
packet
2200-4
packet
2200-5
original burst
2800
t4+4
2212-6
t4+3
2212-7
t4+2
2212-8
t4+1
2212-9
t4
2212-10
packet
2200-1
packet
2200-2
packet
2200-3
packet
2200-4
packet
2200-5
copy burst
2802
packet
2200-6
packet
2200-7
packet
2200-7
packet
2200-8
packet
2200-9
original burst
2804

Fig. 28

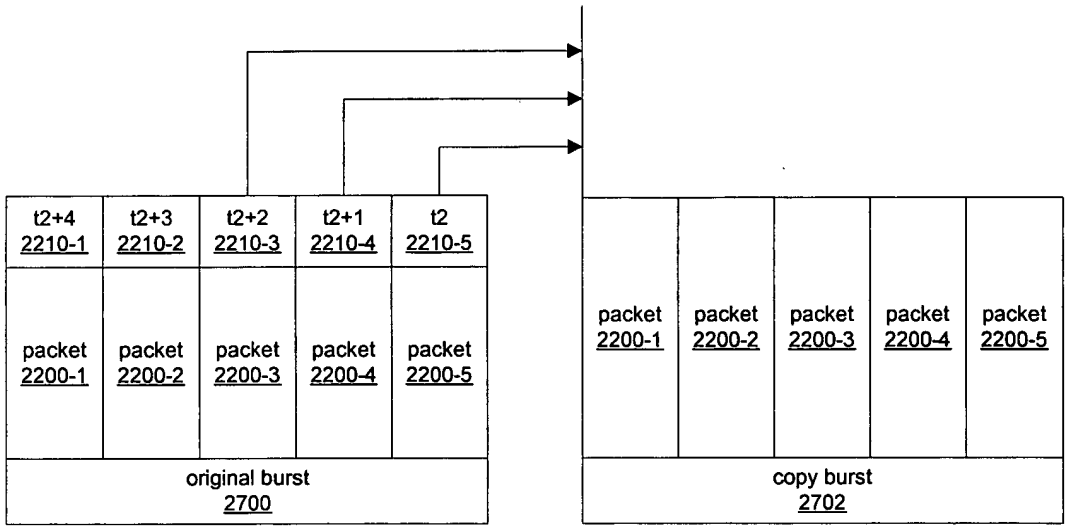

t2+4
2210-1
t2+3
2210-2
t2+2
2210-3
t2+1
2210-4
t2
2210-5
packet
2200-1
packet
2200-2
packet
2200-3
packet
2200-4
packet
2200-5
original burst
2700
packet
2200-1
packet
2200-2
packet
2200-3
packet
2200-4
packet
2200-5
copy burst
2702

Fig. 27

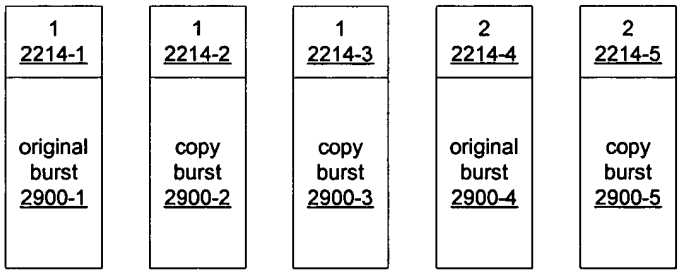

1
2214-1
original
burst
2900-1
1
2214-2
copy
burst
2900-2
1
2214-3
copy
burst
2900-3
2
2214-4
original
burst
2900-4
2
2214-5
copy
burst
2900-5

Fig. 29